

In the Specification:

Replace the paragraphs beginning on page 1, line 13, with the following rewritten paragraphs:

Such transmission system may be used ~~for example~~ for private networks for transmitting information signals to mobile receivers or for the transmission of several high quality radio ~~programmes~~ programs to a receiving area. Since a high spectral congestion exists, ~~i.e., and~~ bandwidths for transmission are very limited, radio transmission systems having a plurality of transmitters, or transmitters operating on substantially the same frequency, have been investigated. Such radio transmission systems are called single frequency networks (SFNs).

However, such systems cause some problems as ~~regards~~ regarding the reception. One problem is caused by interferences between transmission signals of the same frequency, which are received from several transmitters. In receiving areas where the signals are received with levels which are very near to one another, these interferences may result in an almost complete disappearance of the total signal received by the receiver. A problem is caused by the fact that, even if precautions have been taken to apply the same information signals synchronously to the different transmitters of the network, a receiver does not synchronously receive these signals, particularly from the two transmitters nearest to the receiver because of the difference in propagation time of the carrier signals. The same information signals coming from the two nearest transmitters, which have been subjected to different delays, then overlap.

Replace the paragraph beginning on page 2, line 37, with the following rewritten paragraph:

In a single frequency network, it is critical that all transmitters really transmit on exactly that frequency they are required to ~~do~~. When a typical scenario is considered, a satellite transmits at a center frequency of about 2.34 GHz. The required accuracy of each transmitter in the single frequency network amounts to below ± 20 Hz which translates into a frequency tolerance of below ± 0.01 ppm (parts per million).

Replace the paragraph beginning on page 5, line 15 with the following rewritten paragraph:

The present invention is based on the realisation that a super stable reference source can be dispensed ~~for~~ with, because the satellite signal itself, which has a defined frequency, can be used for controlling the repeater output frequency. Thus, a quite inaccurate repeater system clock, ~~which is inexpensive compared to super stable reference sources,~~ can be used. The repeater system clock error is, however, computed using the received satellite signal and is compensated for. Thus, the repeater system in accordance with the present invention is synchronized to the satellite as an external reference.

Replace the paragraphs beginning on page 7, line 14 with the following rewritten paragraphs:

In Fig. 1, a repeater system in accordance with the present invention which is indicated by the reference numeral 10 is illustrated. The repeater system 10 generally comprises a demodulator 12 and a modulator 14. Connected between an input 16 of the repeater system 10 and an input of the demodulator 12 is a radio frequency (RF) tuner 18, which can optionally be bypassed by a bypass 20. The bypass 20 will be active when the modulated input signal at the input 16 has a

frequency f_{IN} which is small enough that the modulated input signal can be processed by the demodulator 12 directly. Similarly, the repeater system 10 comprises an up-converter 22 between an output of the demodulator 12 and an output 24 of the repeater system 10, which can optionally be bypassed by a bypass 26 when the frequency f_{OUT} of the modulated output signal of the repeater system 10 is small enough such that a desired modulated output signal can be generated by the modulator 14.

The modulator 14 includes a first mixer 28 having an input port 28a, an output port 28b and a local oscillator port 28c. A first controllable oscillator (CO1) 30 is connected to the local oscillator port 28c of the first mixer 28. The demodulator 12 further includes feedback means 32 for determining a first control value CV_1 which is applied to the controllable first oscillator 30, the control value CV_1 being determined such that the frequency of a signal at the output port of the first mixer 28 approaches a desired value, preferably zero.